

REMARKS/ARGUMENTS

This case has been carefully reviewed and analyzed in view of the Official Action dated 2 October 2006. Responsive to the rejections made in the Official Action, Claim 1 has been amended and is now believed clearer in its recitation of elements. Claim 8 has been cancelled by this Amendment and Claims 10-12 have been appended for prosecution. Claims 1, 3-5 and 9-12 will be pending in the subject Patent Application upon entry of this Amendment.

In the Official Action, the Examiner objected to the Specification as failing to provide proper antecedent basis for the Claim limitation “second adhesive being adapted for bonding said frame to said cathode and said anode plates without the use of heat, said adhesive being removed by said Application of heat”. Accordingly, the offending limitation has been removed from Claim 1.

The Examiner objected to Claim 1 for the phrase “adapted to” and the recitation of “second adhesive being adapted for bonding said frame”. Amended Claim 1 includes corrections to the language thereof and the phrase “adapted to” has been deleted.

In the Official Action, the Examiner rejected Claims 1, 3-5, 8 and 9 under 35 U.S.C. § 103(a) as being unpatentable over Yamada, et al. (Japanese Patent Application JP2002-184329; hereinafter “Yamada”) in view of Applicants’ admitted prior art (hereinafter “AAPA”). In setting forth these rejections, the Examiner correlated certain disclosed features of Yamada with claimed elements

of the subject Patent Application. The Examiner observed that Yamada fails to disclose a second adhesive disposed on the fixing side strips and cited the AAPA as exemplifying the use of UV glue for temporary fixing of the cathode and anode plate. The Examiner then stated that it would have been obvious to one of ordinary skill in the art at the time of the invention to use UV glue on the side strips of Yamada for reducing the occurrence of distortion during the fixing method.

As clearly described in the subject Patent Application, Applicants' inventive concept includes a self-adhesive frame suitable for assembling in a field emission display device. The self-adhesive frame has among its benefits elements that are combined in a manufacturing process separate from the field emission display manufacturing process. Further, fixing side strips according to Applicants' invention provide a surface separated from the main body for applying a second adhesive. Such separation prevents interactions between first and second adhesives, which, as described in the subject Patent Application, may result in voids in the fused material. As such, the self-adhesive frame includes a "main body separated from the cathode and anode plates". A "glass adhesive [is] disposed in a dried un-fused state on said cathode plate sealing surface and said anode plate sealing surface". This state of the glass adhesive is described on page 12 lines 22-24, as will be recognized by the skilled artisan. Applicants' self-adhesive frame further includes "a plurality of fixing side strips extending

outwardly from an outer side of the main body [and] having a cathode plate facing surface and an anode plate facing surface”. A “light-activated adhesive [is] disposed in an un-activated state on said cathode plate surface and said anode plate surface of each of said fixing side strips”.

The use of the self-adhesive frame in the manufacturing of a field emission display device establishes a structure therein significantly less susceptible to structural distortion typical of such processes in the prior art. A field emission display resultant from Applicants’ inventive measures includes “a cathode plate having a plurality of cathode conductors disposed thereon”, “an anode plate having a plurality of anode conductors disposed therein”, where the anode plate and the cathode plate are spaced apart in an overlaying relationship. Applicants’ frame is disposed between the cathode and anode plates by way of a second adhesive “disposed on said cathode plate facing surface and said anode plate facing surface of each of said fixing side strips, said adhesive bonding via light activation said frame to said cathode and anode plates such that said frame, said cathode plate and said anode plate are maintained in registration prior to said application of heat”. The structure of Applicants’ field emission device is achieved through the unique combination of elements that maintain the alignment of the frame, the anode plate and the cathode plate in preparation for the fusion process, as is now more clearly recited in the amended Claims of the subject Patent Application.

The full combination of these and other features now recited in Applicants' pending Claims is nowhere disclosed in the references cited by the Examiner. Contrary to the Examiner's assertions, Yamada does not show the claimed fixing side strips on the frame 18. The reference discloses a set of lobes 31a, 32a, which are formed on the substrate layer 31 and the indium layer 32, and only on the front substrate 11. The corners of the frame 18 are then positioned adjacent the lobes 31a, 32a, and are held there through the use of a fixture. Nowhere is it disclosed, suggested or even implied in Yamada that the lobes are formed on or are part of the frame 18. Thus, it is respectfully submitted that the invention of the subject Patent Application, as now claimed, should be allowable for this reason alone.

As the Examiner observed, Yamada fails to disclose a fixing adhesive applied to the fixing side strips for bonding the frame to the cathode and anode plates. Indeed, the reference first fails to disclose "a plurality of fixing side strips extending outwardly from an outer side of the main body [of the frame]" and cannot therefor disclose "a second adhesive disposed on said cathode plate facing surface and said anode plate facing surface of each of said fixing side strips". Instead of Applicants' fixing side strips, the reference shows lobes 31a, 32a on the substrate and indium layers, respectively, of substrate 11. Thus, even if temporary adhesive were to be applied to the lobes 31a, 32a, as is suggested by the Examiner, they could not "[maintain] said frame, said cathode plate and said anode plate ... in registration prior to said application of heat", as is implemented by the

Applicants' frame, as now claimed. Clearly, such application of adhesive to the lobes 31a, 32a of Yamada's device, which are formed only on substrate 11, would not result in contact of that adhesive on both sides of the frame, such as is implemented by Applicants' inventive measures. It is therefore respectfully submitted that the deficiencies of Yamada with respect the Applicants' invention, as now claimed, are not remedied even when applying a second adhesive, such as that described by the AAPA, to the lobes 31a, 32a.

It is now believed that Claims 1 and 10 respectively recite elements not shown in combination by the prior art cited by the Examiner, even when disclosures of such prior art are combined. As such, the prior art cited, even when combined, does not address a frame having fixing side strips on which a second adhesive is applied for the purposes and objectives set forth in the subject Patent Application. Thus, it is believed that the invention of the subject Patent Application, as now claimed, is neither anticipated nor made obvious by the prior art cited.

The remaining references cited by the Examiner, but not used in the rejections have been reviewed, but are believed further remote from Applicants' inventive concept, when patentable considerations are taken into account.

It is now believed that the subject Patent Application has been placed in condition for allowance, and such action is respectfully requested.

The Director is hereby authorized to pay any deficiencies in fees associated with the filing of this Reply, should there be any, from Deposit Account # 18-2011.

Respectfully submitted,
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